

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



IN THE MATTER OF AN
ENFORCEMENT ACTION
CONCERNING
FORMOSA PLASTICS
CORPORATION, TEXAS,
TCEQ AIR ACCOUNT
NO. CB-0038-Q

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BEFORE THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

AGREED ORDER DOCKET NO. 2000-1144-AIR-E

At its OCT 27 2004 agenda, the Texas Commission on Environmental Quality, formerly known as the Texas Natural Resource Conservation Commission ("Commission" or "TCEQ" or "TNRCC") considered this agreement of the parties, resolving an enforcement action regarding Formosa Plastics Corporation, Texas ("Formosa") under the authority of TEX. WATER CODE ch. 7 and TEX. HEALTH & SAFETY CODE ch. 382. The Executive Director of the TCEQ, represented by the Litigation Division, and Formosa, represented by Mr. Robert Stewart, of the law firm of Kelly, Hart & Hallman, presented this agreement to the Commission.

Formosa understands that it has certain procedural rights at certain points in the enforcement process, including, but not limited to, the right to formal notice of violations, notice of an evidentiary hearing, the right to an evidentiary hearing, and a right to appeal. By entering into this Agreed Order, Formosa agrees to waive all notice and procedural rights.

It is further understood and agreed that this Agreed Order represents the complete and fully-integrated agreement of the parties. The provisions of this Agreed Order are deemed severable and, if a court of competent jurisdiction or other appropriate authority deems any provision of this Agreed Order unenforceable, the remaining provisions shall be valid and enforceable. The duties and responsibilities imposed by this Agreed Order are binding upon Formosa.

The Commission makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

1. Formosa owns and operates a plastic and petrochemical plant located at 201 Formosa Drive, Point Comfort, Calhoun County, Texas (the "Plant").

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2. The Plant consists of one or more sources as defined in TEX. HEALTH & SAFETY CODE § 382.003(12). Formosa holds TCEQ Air Permit Nos. 7699, 19200, and 19168 for operations at the Plant.
3. During an investigation conducted on July 11, 2000, a TCEQ Corpus Christi Regional Office investigator documented that Formosa emitted approximately 2,870 pounds ("lbs") of heptane to the atmosphere from a spill which occurred on July 11, 2000, when heptane was loaded into Solvent Buffer Tank B-175 and leaked through an open drain valve into the storm water drain system.
4. During a record review conducted on July 21, 2000, a TCEQ Corpus Christi Regional Office investigator documented that Formosa failed to prevent a nonemergency relief valve discharge of 421 lbs of vinyl chloride ("VCL") and 605 lbs of hydrogen chloride ("HCL") to the atmosphere on April 20, 2000.
5. During a record review conducted on August 7, 2000, a TCEQ Corpus Christi Regional Office investigator documented that Formosa failed to prevent a nonemergency relief valve discharge of 83.15 lbs of VCL to the atmosphere on July 24, 2000.
6. During investigations conducted on July 13, 2000 and October 30, 2000, a TCEQ Corpus Christi Regional Office investigator documented that Formosa exceeded the maximum allowable VCL concentration of 10 parts per million ("ppm") in a reactor exhaust gas stream on July 9, 2000 and September 29, 2000. Approximately 7,058 pounds of VCL were released to the atmosphere on July 9, 2000 and 621 pounds on September 29, 2000.
7. During a record review conducted on August 10, 2000 and an investigation conducted on October 12, 2000, TCEQ Corpus Christi Regional Office investigators documented that Formosa allowed the olefins elevated flare to have visible emissions for more than five minutes in a two-hour period, and by exceeding the maximum allowable emission rates ("MAER") at the olefins elevated flare for volatile organic compounds ("VOCs"), nitrogen oxides ("NO_x"), carbon monoxide ("CO"), and opacity on July 15-16, 2000, and October 12, 2000. There were visible emissions for 40 minutes during a two-hour period on July 15-16, 2000. Opacity exceeded 15 % averaged over a six-minute period on October 12, 2000 for more than five hours. The MAER for VOC is 1.79 lbs/hr and 0.43 tons per year, whereas actual emissions on July 15-16, 2000 were approximately 1557.78 lbs/hr and 15.57 total tons and on October 12, 2000 were 95,463 lbs/hr and 258.7 total tons. The MAER for CO is 9.68 lbs/hr, whereas actual emissions on July 15-16, 2000 were 1332.4 lbs/hr and on October 12, 2000 were 707.01 lbs/hr. The MAER for NO_x is 1.90 lbs/hr, whereas actual emissions on July 15-16, 2000 were 184.5 lbs/hr and on October 12, 2000 were 97.79 lbs/hr.
8. During a record review conducted on September 18, 2000, a TCEQ Corpus Christi Regional Office investigator documented that Formosa failed to maintain the Plant in a manner

consistent with good air pollution control practices for minimizing emissions. Specifically, on September 15, 2000, corrosion caused a tube leak in heat exchanger VE-401D which allowed process material to leak into the cooling tower and circulate in the cooling tower where 72.08 lbs of VCL and 79.27 lbs of ethylene dichloride were released into the atmosphere.

9. During record reviews conducted on October 26, 2000 and October 30, 2000 a TCEQ Corpus Christi Regional Office investigator documented that Formosa exceeded the maximum allowable VCL concentration, 10 ppm, in an exhaust gas stream from equipment used in VCL fromation and/or purification on October 18, 2000. Approximately 248.79 pbs/hr of VCL was released into the atmosphere.
10. During records reviews conducted on March 5 and 6, 2001 and April 30, 2001, Corpus Christi Regional Office investigators documented that Formosa exceeded the maximum allowable VCL concentration of 10 ppm in a reactor exhaust gas stream on March 4, 2001. This resulted in a release of 384.35 lbs of VCL.
11. During an investigation conducted on August 9, 2001, a TCEQ Corpus Christi Regional Office investigator documented that Formosa:
 - a. exceeded the maximum allowable VCL concentration of 10 ppm from a leaking transmitter valve on a reactor stopper charge pot on February 13, 2001 and a slurry leak from a drain valve on PP 705 (slurry pump) on June 9, 2001. On February 13, 2001 and June 9, 2001 the concentrations reached 10,333 ppm and 10,373 ppm, respectively;
 - b. exceeded the MAER for VCL at plant incinerator VH-801C on April 27 and 29, 2001. The MAER for VCL is 1.43 lbs/hr, whereas actual emissions were 22.25 lbs/hr on April 27, 2001, and 26.27 lbs/hr on April 29, 2001. The exhaust gas stream also exceeded 10 ppm averaged over a three hour period. The exhaust gas stream was 102.66 ppm on April 27, 2001, and 26.47 ppm on April 29, 2001;
 - c. failed to submit complete and timely notification for one reportable upset which occurred on July 19-23, 2001;
 - d. failed to maintain and operate the vinyl plant in a manner consistent with good air pollution control practice for minimizing emissions. Continuous leaks from Chill Water Tank B caused unauthorized VCL releases of 1.15 lbs on July 19, 2001; 8.05 lbs on July 20, 2001; 29.15 lbs on July 21, 2001; 11.21 lbs on July 22, 2001; and 11.21 lbs on July 23, 2001.

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- e. failed to supply all required information in the upset notification which occurred on June 23, 2001, and by failing to clearly identify either the cause of the upset or the actions taken to correct the upset in the final reports submitted for releases which occurred on October 12 and 19, November 17, 27, and 30, and December 8, 2000;
 - f. exceeded the MAER for VOCs, CO, and NO_x on eight occasions between July 24, 2000 and June 6, 2001; and
 - g. allowed the olefins flare to have visible emissions for more than five minutes in a two-hour period on December 19, 2000 and May 23, 2001, and by exceeding the hourly MAER for NO_x, CO, and benzene on December 19, 2000. The hourly MAER for NO_x is 1.90 lbs/hr, whereas actual emissions were 103.4 lbs/hr. The hourly MAER for CO is 9.68 lbs/hr, whereas actual emissions were 746.7 lbs/hr. The hourly MAER for benzene is 0.02 lbs/hr, whereas actual emissions were 2.47 lbs/hr.
12. During an investigation conducted on February 11, 2002, a TCEQ Corpus Christi Regional Office investigator documented that Formosa failed to demonstrate, through the prescribed testing, that the low pressure tank flare met the minimum British Thermal Unit ("BTU") content and that the minimum heating value of the waste gas was met.
13. During investigations conducted on February 4, 2002 and February 6, 2002, a TCEQ Corpus Christi Regional Office investigator documented that Formosa:
- a. failed to maintain and operate the vinyl plant in a manner consistent with good air pollution control practice for minimizing emissions. This failure led to the unauthorized release of 1,043.57 lbs of VCL and 1,193.1 lbs of ethylene dichloride on February 4, 2002; and
 - b. failed to maintain and operate the vinyl plant consistent with good air pollution control practice for minimizing emissions. This failure led to the unauthorized release of 0.27 lbs of VCL and 0.43 lbs of hydrochloric acid on February 5, 2002.
14. During a record review conducted on February 14, 2002, a TCEQ Corpus Christi Regional Office investigator documented that Formosa violated:
- a. failed to conduct performance testing as required for PVCL Dryers Emission Point Numbers ("EPNs") 313G (Dryer G) and 313H (Dryer H). The Dryers are required to be tested every five years. Although Dryer G, a dual stack dryer, was tested on June 6, 2000, the test was conducted on only one stack instead of both stacks as required. Although Dryer H was tested on October 11 and 12, 2001, there were data collection errors and/or deviations detected during the review that rendered the VCM results unreliable; and

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- b. exceeded the permitted particulate matter ("PM") emission rate from EPN 313H of 0.98 lbs/hr by emitting 10.85 lbs/hr during a performance test conducted on October 11-12, 2001.
- 15. Formosa received notice of the violations on or about August 28, 2000; November 2, 2000; May 9, 2001; September 2, 2001; March 5, 2002; April 1, 2002; April 3, 2002; April 11, 2002; and November 3, 2002.
- 16. The Executive Director recognizes that Formosa has implemented the following corrective action measures at the Plant in response to this enforcement action:
 - a. In October 2000, Formosa installed a new properly sized air conditioner in the distributive Control System computer room of the Olefins unit;
 - b. On April 20, 2000, Formosa changed the early relief system pressure setting to give an earlier indication of any pressure changes;
 - c. On July 13, 2000, Formosa capped the drain on Solvent Buffer Tank B-175;
 - d. On July 27, 2000, Formosa changed the set point for the polyvinyl chloride reactor stopper system.

CONCLUSIONS OF LAW

- 1. As evidenced by Finding of Fact Nos. 1 and 2, Formosa is subject to the jurisdiction of the TCEQ pursuant to TEX. WATER CODE § 7.002, TEX. HEALTH & SAFETY CODE § 382.003(12), and the rules of the Commission.
- 2. As evidenced by Finding of Fact No.3, Formosa emitted approximately 2,870 lbs of heptane to the atmosphere from a spill which occurred on July 11, 2000, in violation of TEX. HEALTH & SAFETY CODE § 382.085(b).
- 3. As evidenced by Finding of Fact No. 4, Formosa failed to prevent a nonemergency relief valve discharge of VCL and HCL to the atmosphere on April 20, 2000, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.65(a); and TEX. HEALTH & SAFETY CODE § 382.085(b).
- 4. As evidenced by Finding of Fact No. 5, Formosa failed to prevent a nonemergency relief valve discharge of VCL to the atmosphere on July 24, 2000, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.65(a); and TEX. HEALTH & SAFETY CODE § 382.085(b).

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5. As evidenced by Finding of Fact No. 6, Formosa exceeded the maximum allowable VCL concentration of 10 ppm in a reactor exhaust gas stream on July 9, 2000 and September 29, 2000, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.64(a); and TEX. HEALTH & SAFETY CODE § 382.085(b).
6. As evidenced by Finding of Fact No. 7, Formosa exceeded the MAER at the olefins elevated flare for VOCs, NO_x, CO, and opacity on July 15-16, 2000, and October 12, 2000, in violation of 30 TEX. ADMIN. CODE §§ 111.111(a)(4)(A), 116.115(b)(2)(G), and 116.115(c); Air Permit Nos. 19168 and 7699; and TEX. HEALTH & SAFETY CODE § 382.085(b).
7. As evidenced by Finding of Fact No. 8, Formosa failed to maintain the Plant in a manner consistent with good air pollution control practices for minimizing emissions, in violation of 30 TEX. ADMIN. CODE §§ 101.20(2) and 113.100; 40 C.F.R. §§ 61.12(c) and 63.6(e); and TEX. HEALTH & SAFETY CODE § 382.085(b).
8. As evidenced by Finding of Fact No. 9, Formosa exceeded the maximum allowable concentration of VCL of 10 ppm in an exhaust gas stream from equipment used in the VCL formation and/or purification on October 18, 2000, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.63(a); and TEX. HEALTH & SAFETY CODE § 382.085(b).
9. As evidenced by Finding of Fact No. 10, Formosa exceeded the maximum allowable VCL concentration of 10 ppm in a reactor gas stream on March 4, 2001, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.64(a)(1); and TEX. HEALTH & SAFETY CODE § 382.085(b).
10. As evidenced by Finding of Fact No. 11.a., Formosa failed to limit the concentration of VCL in two instances to 10 ppm averaged over a three hour period, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. §§ 61.63(a) and 61.64(a)(1); and TEX. HEALTH & SAFETY CODE § 382.085(b).
11. As evidenced by Finding of Fact No. 11.b., Formosa exceeded the MAER for VCL at plant incinerator VH-801C on April 27 and 29, 2001, in violation of 30 TEX. ADMIN. CODE §§ 101.20(2) and 116.115(b); 40 C.F.R. §§ 61.63(a) and 61.64(a)(1); Air Permit No. 7699, General Condition 8; and TEX. HEALTH & SAFETY CODE § 382.085(b).
12. As evidenced by Finding of Fact No. 11.c., Formosa failed to submit complete and timely notification for one reportable upset which occurred on July 19-23, 2001, in violation of 30 TEX. ADMIN. CODE § 101.6(a)(1) and TEX. HEALTH & SAFETY CODE § 382.085(b).
13. As evidenced by Finding of Fact No. 11.d., Formosa failed to maintain and operate the vinyl plant in a manner consistent with good air pollution control practice for minimizing emissions, by allowing continuous leaks from Chill Water Tank B, in violation of 30 TEX.

ADMIN. CODE §§ 101.7(a), 101.20(2) and 113.100; 40 C.F.R. §§ 61.122(c) and 63.6(e); and TEX. HEALTH & SAFETY CODE § 382.085(b).

14. As evidenced by Finding of Fact No. 11.e., Formosa failed to supply all required information in the upset notification which occurred on June 23, 2001, and by failing to clearly identify either the cause of the upset or the actions taken to correct the upset in the final reports submitted for releases which occurred on October 12 and 19, November 17, 27, and 30, and December 8, 2000, in violation of 30 TEX. ADMIN. CODE § 101.6(b) and TEX. HEALTH & SAFETY CODE § 382.085(b).
15. As evidenced by Finding of Fact 11.f., Formosa exceeded the MAER for VOCs, CO, and NO_x, on eight occasions between July 24, 2000 and June 6, 2001, in violation of 30 TEX. ADMIN. CODE § 116.115(b); Air Permit No. 19200, General Condition No. 8; and TEX. HEALTH & SAFETY CODE § 382.085(b).
16. As evidenced by Finding of Fact No. 11.g., Formosa allowed the olefins flare to have visible emissions for more than five minutes in a two-hour period on December 19, 2000 and May 23 ,2001, and by exceeding the hourly MAER for NO_x, CO, and benzene on December 19, 2000, in violation of 30 TEX. ADMIN. CODE §§ 111.111(a)(4)(A) and 116.115(b); Air Permit No 19168, Special Condition No. 1; and TEX. HEALTH & SAFETY CODE § 382.085(b).
17. As evidenced by Finding of Fact No. 12, Formosa failed to operate the flare in accordance with 40 C.F.R. § 60.18; specifically, by failing to demonstrate, through the prescribed testing, that the low pressure tank flare met the minimum BTU content and that the minimum heating value of the waste gas was met, in violation of 30 TEX. ADMIN. CODE §§ 101.20(1) and 116.115(b); 40 C.F.R. §§ 60.112b(a)(3)(ii), 60.18(c)(3)(ii), 60.18(f)(3), and 60.8; Air Permit No. 19169, Special Condition No. 10; TEX. HEALTH & SAFETY CODE § 382.085(b).
18. As evidenced by Finding of Fact No. 13.a., Formosa failed to maintain and operate the vinyl plant in a manner consistent with good air pollution control practice for minimizing emissions on February 4, 2002, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.12(c); and TEX. HEALTH & SAFETY CODE § 382.085(b).
19. As evidenced by Finding of Fact No. 13.b., Formosa failed to maintain and operate the vinyl plant consistent with good air pollution control practice for minimizing emissions on February 5, 2002, in violation of 30 TEX. ADMIN. CODE § 101.20(2); 40 C.F.R. § 61.12(c); and TEX. HEALTH & SAFETY CODE § 382.085(b).
20. As evidenced by Finding of Fact No. 14.a., Formosa failed to conduct performance testing as required for EPNs 313G and 313H, in violation of 30 TEX. ADMIN. CODE §§ 101.20(3) and 116.115(c); Air Permit No. 7699, Special Condition 9F (August 1999)/11F (September 2001); and TEX. HEALTH & SAFETY CODE § 382.085(b).

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21. As evidenced by Finding of Fact No. 14.b., Formosa exceeded the permitted PM emission rate from EPN 313H during a performance test conducted on October 11-12, 2001, in violation of 30 TEX. ADMIN. CODE §§ 101.20(3) and 116.115(b)(2)(G); Air Permit No. 7699; and TEX. HEALTH & SAFETY CODE § 382.085(b).
22. Pursuant to TEX. WATER CODE § 7.051, the Commission has the authority to assess an administrative penalty against Formosa for violations of the Texas Water Code and the Texas Health and Safety Code within the Commission's jurisdiction; for violations of rules adopted under such statutes; or for violations of orders or permits issued under such statutes.
23. An administrative penalty in the amount of one hundred fifty thousand dollars (\$150,000.00) is justified by the facts recited in this Agreed Order, and considered in light of the factors set forth in TEX. WATER CODE § 7.053. Seventy-five thousand dollars (\$75,000.00) of the administrative penalty shall be offset with the condition that Formosa implement the SEP defined in Attachment A, incorporated herein by reference. Formosa has paid the remaining seventy-five thousand dollars (\$75,000.00) of the administrative penalty.

ORDERING PROVISIONS

NOW, THEREFORE, THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ORDERS that:

1. Formosa is assessed an administrative penalty in the amount of one hundred fifty thousand dollars (\$150,000.00) as set forth in Conclusion of Law No. 23 for violations of TCEQ rules and state statutes. The imposition of this administrative penalty and Formosa's compliance with all the terms and conditions set forth in this Agreed Order completely resolve the violations set forth by this Agreed Order in this action. However, the Commission shall not be constrained in any manner from requiring corrective actions or penalties for other violations that are not raised here. Administrative penalty payments shall be made payable to "Texas Commission on Environmental Quality" and shall be sent with the notation "Re: Formosa Plastics Corporation, Texas; Docket No. 2000-1144-AIR-E; Enforcement ID No. 103" to:

Financial Administration Division, Revenues Section
Attention: Cashier's Office, MC 214
Texas Commission on Environmental Quality
P.O. Box 13088
Austin, Texas 78711-3088

2. Formosa shall implement and complete a Supplemental Environmental Project ("SEP") in accordance with TEX. WATER CODE § 7.067. Seventy-five thousand dollars (\$75,000.00)

of the assessed administrative penalty shall be offset with the condition that Formosa implement the SEP defined in Attachment A. Formosa's obligation to pay the conditionally offset portion of the administrative penalty assessed shall be discharged upon final completion of all provisions of the SEP agreement.

3. Formosa shall undertake the following technical requirements:

- a. Independent Consultant. Within 60 days after the effective date of this Agreed Order, Formosa shall submit to the TCEQ Executive Director (the "ED") the name of the consultant selected by Formosa. Formosa shall select an independent third-party consultant (and submit his or her qualifications and resume) who is certified by the National Association of Corrosion Engineers ("NACE") or holds an equivalent certification, and is qualified to conduct an unprejudiced review focused on the 500 Area of the Vinyl Chloride Monomer ("VCM") Plant to identify areas where failures due to corrosion may lead to the unauthorized emission of air contaminants to the atmosphere. The 500 Area is selected to serve as the area of study, as data collected to date has identified that this area has experienced a major portion of releases that are related to root causes identified as corrosion related, and represents a cross section of the process conditions experienced in the Vinyl Plant. The concept is that the Consultant will study the 500 Area of the VCM portion of the Plant, and then Formosa will apply the lessons learned through the rest of the Vinyl Plant. The scope of the work for the corrosion study is set forth in Exhibit B, attached hereto and incorporated by reference.
- b. Neutrality. At the same time Formosa submits the name of the selected consultant pursuant to Ordering Provision 3.a., Formosa shall submit a copy of a neutrality agreement between Formosa and the consultant that clarifies that in his or her review the consultant is obligated to exercise his or her independent professional judgment as set forth by the Texas Board of Professional Engineers.
- c. Consultant's Report. The consultant shall submit a time line for the completion of the study, which shall be based on a realistic estimation of time necessary to conduct the study and submit the final report. The consultant shall have free access to resources at Formosa, and be able to discuss the in-work study findings with Formosa. The consultant shall issue a final report, with findings, recommendations, and an implementation schedule for any actions which in the consultant's sole independent engineering judgment are necessary for Formosa to minimize corrosion failures and improve the corrosion prevention at the Vinyl Plant. In determining the recommendations, the consultant will consider good engineering practices, state and federal regulations, and permits that apply to the Vinyl Plant. The consultant shall

also consider the frequency of past failures and potential for future corrosion failures.

- d. Comment. Within 30 days after the consultant submits its report, Formosa shall submit to the ED for her consideration any written comments relating to the recommendations in the consultant's report, including the implementation schedule. For any of the consultant's recommendations that Formosa disagrees with, Formosa shall propose an alternate plan and schedule to minimize corrosion failures and improve the corrosion prevention at the Vinyl Plant.
- e. Executive Director's Evaluation. Within a reasonable time after the consultant submits its report and after the written comment period in Ordering Provision 3.d. has expired, the ED shall evaluate the consultant's report and any written comments received relating to the report. The ED shall approve the report after making any modifications she deems appropriate and that may be warranted by the circumstances presented in any comments, including but not limited to time frames for completing the implementation of any of the consultant's recommendations.
- f. Dispute Resolution. If a dispute arises concerning the implementation of the Ordering Provisions of this Agreed Order, Formosa and the TCEQ staff shall make a good faith attempt to resolve the dispute informally. If informal consultation fails to resolve the dispute, either party may refer the dispute to an appropriate TCEQ Deputy Director or his or her designee. The referral shall be in writing and shall contain the specific issue(s) in dispute with copies provided to the other party. Once a dispute has been referred to a Deputy Director, any requirement or deadline that is the subject of the dispute shall be stayed pending a final decision. Formosa and the Executive Director agree not to invoke the dispute resolution procedures for minor matters or otherwise in bad faith. The decision of the Deputy Director shall be in writing, setting out the basis for the decision. A written appeal of the decision may be made to the Executive Director within 30 days of receipt of the Deputy Director's decision. The appeal shall also be in writing, with copies provided to the other party. A decision of the Executive Director shall constitute final agency action for purposes of TEX. WATER CODE § 5.351 and TEX. HEALTH & SAFETY CODE § 382.032. In lieu of a final decision by the Executive Director, the date of the written notice of termination of dispute resolution by either party shall be the date upon which the position of the TCEQ becomes final for purposes of TEX. WATER CODE § 5.351 and TEX. HEALTH & SAFETY CODE § 382.032. However, the 30-day filing period under these sections does not commence until either (i) Formosa has received the final written decision of the Executive Director, or (ii) either party has received written notice that the other considers dispute resolution terminated. If Formosa seeks review of the final agency action, it shall have all the substantive and procedural rights accorded to it by Texas law, including, but not limited to, the right to seek a stay of the effect of the agency action pending appeal.

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- g. Formosa's Implementation. Subject to Ordering Provision 3.f. above, Formosa shall implement the recommendations the ED determines are appropriate in accordance with the approved time frames. Upon completion of each requirement, Formosa shall notify the ED in writing that the requirement has been completed. Formosa shall maintain records sufficient to demonstrate compliance with the requirements of this paragraph at the Plant.
- h. Formosa shall submit all correspondence, reports, and documentation required by these Ordering Provisions to:

Troy Dalton, Coordinator
Engineering Services Section
Enforcement Division, MC 171
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

and shall send a copy of the documentation to:

David Turner, Air Section Manager
Corpus Christi Regional Office
Texas Commission on Environmental Quality
6800 Ocean Drive, Suite 1200
Corpus Christi, Texas 78412-5503

- 4. The provisions of this Agreed Order shall apply to and be binding upon Formosa. Formosa is ordered to give notice of this Agreed Order to personnel who maintain day-to-day control over the Plant operations referenced in this Agreed Order.
- 5. If Formosa fails to comply with any of the Ordering Provisions in this Agreed Order within the prescribed schedules, and that failure is caused solely by an act of God, war, strike, riot, or other catastrophe, Formosa's failure to comply is not a violation of this Agreed Order. Formosa has the burden of establishing to the Executive Director's satisfaction that such an event has occurred. Formosa shall notify the Executive Director within seven days after Formosa becomes aware of a delaying event and shall take all reasonable measures to mitigate and minimize any delay.
- 6. The Executive Director may grant an extension of any deadline in this Agreed Order or in any plan, report, or other document submitted pursuant to this Agreed Order, upon a written and substantiated showing of good cause. All requests for extensions by Formosa shall be made in writing to the Executive Director. Extensions are not effective until Formosa

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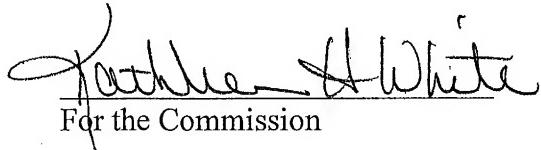
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receives written approval from the Executive Director. The determination of what constitutes good cause rests solely with the Executive Director.

7. The Executive Director may refer this matter to the Office of the Attorney General of the State of Texas ("OAG") for further enforcement proceedings without notice to Formosa if the Executive Director determines that Formosa has not complied with one or more of the terms or conditions in this Agreed Order.
8. This Agreed Order shall terminate five years from its effective date or upon compliance with all the terms and conditions set forth in this Agreed Order; whichever is later.
9. This Agreed Order, issued by the Commission, shall not be admissible against Formosa in a civil proceeding, unless the proceeding is brought by the OAG to: (1) enforce the terms of this Agreed Order; or (2) pursue violations of a statute within the Commission's jurisdiction, or of a rule adopted or an order or permit issued by the Commission under such a statute.
10. The Chief Clerk shall provide a copy of this Agreed Order to each of the parties. Pursuant to 30 TEX. ADMIN. CODE § 70.10(b) and TEX. GOV'T CODE § 2001.142, the effective date is the date of hand-delivery of the Order to Formosa, or three days after the date on which the Commission mails notice of the Order to Formosa, whichever is earlier.

SIGNATURE PAGE

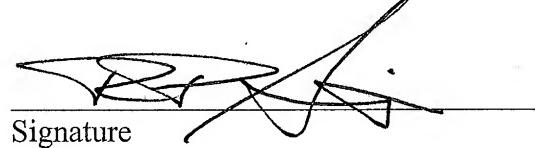
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



Kathleen H. White
For the Commission

I, the undersigned, have read and understand the attached Agreed Order in the matter of Formosa Plastics Corporation, Texas. I am authorized to agree to the attached Agreed Order on behalf of Formosa Plastics Corporation, Texas, and do agree to the specified terms and conditions.

I understand that by entering into this Agreed Order, Formosa Plastics Corporation, Texas waives certain procedural rights, including, but not limited to, the right to formal notice of violations addressed by this Agreed Order, notice of an evidentiary hearing, the right to an evidentiary hearing, and the right to appeal. I agree to the terms of the Agreed Order in lieu of an evidentiary hearing. This Agreed Order constitutes full and final adjudication by the Commission of the violations set forth in this Agreed Order.



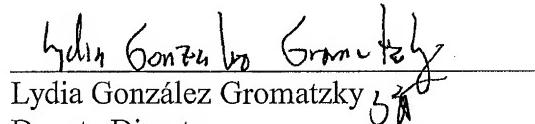
Randy P. Smith
Signature

2/23/04
Date

Randy P. Smith
Name (printed or typed)
Authorized Representative
Formosa Plastics Corporation, Texas

V.P. & Gen. Manager
Title

I, the undersigned, on behalf of the Executive Director of the Texas Commission on Environmental Quality, hereby agree to the terms of this Agreed Order in lieu of an evidentiary hearing. This Agreed Order represents full and final adjudication of the violations giving rise to this Agreed Order.



Lydia González Gromatzky
Deputy Director
Office of Legal Services
Texas Commission on Environmental Quality

5/5/04
Date

Instructions: Send the original signed Signature Page and all pages of this Agreed Order with penalty payment to the Financial Administration Division, Revenues Section at the address in Ordering Provision No. 1 of this Agreed Order.

Attachment A

SUPPLEMENTAL ENVIRONMENTAL PROJECT

The Texas Commission on Environmental Quality (“TCEQ”) agrees to offset a portion of the administrative penalty assessed in this Agreed Order with the condition that Formosa shall perform and comply with the following Supplemental Environmental Project (“SEP”) provisions. The total amount of the conditional offset for the SEP, upon completion according to the terms and schedules listed below, shall be seventy-five thousand dollars (\$75,000.00) of the payable penalty of one hundred fifty thousand dollars (\$150,000.00).

1. Project Description

A. Ambient Fence Line Air Monitoring Project

- Formosa shall install a Fourier Transform Infrared Spectrometer (“FTIR”) ambient air monitoring system at the northern fence line of the Formosa facility in Point Comfort. The FTIR will monitor the ambient air on a continuous basis for vinyl chloride, ethylene dichloride, benzene, ethylene, 1, 3 butadiene, hydrogen chloride and ethylene oxide. Through a qualified, third party contractor, Formosa will purchase and have installed the necessary FTIR equipment, FTIR tower, FTIR building, summa equipment, and electrical equipment.
- If the FTIR monitoring results indicate levels of these chemicals in the air above agreed action levels, a sample by a summa canister device will be triggered at a location north of the Formosa facility.
- In addition, the summa canister sampling device will collect a sample for a 24 hour period every six days for one year. The summa canister sampling device will analyze for all compounds monitored by the FTIR except for hydrogen chloride and ethylene oxide, using analytical method EPA TO 14/15. Although this long-term sampling will be conducted for one year, the summa canisters themselves will remain in place indefinitely, and will continue to operate as a trigger for the FTIR monitoring system after the long-term sampling is completed.
- The monitoring devices will be located at the northwest corner of the Formosa property line, which is approximately two miles north of the intersection of Highway 35 and Farm-to-Market Road (“FM”) 1593 on the east side of FM 1593. This location is approximately 28 degrees 42.536 N and 96 degrees 33.143 W. An additional summa canister monitoring device will be relocated from the City of Point Comfort to Lolita, subject to the consent of the City of Point Comfort.
- Meteorological data will be provided by a meteorological station to be installed adjacent to the FTIR.

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- Formosa will contract with an independent, third-party qualified contractor for the technical aspects of the project, including installation of all air monitoring equipment, as well as evaluating and reporting of data.
- All dollars spent on this project will be used solely for the direct cost of the project and no portion will be spent on administrative costs. The SEP will be performed in accordance with all federal, state and local environmental laws and regulations.
- Formosa certifies that there is no prior commitment to make this contribution and that it is being performed solely in an effort to settle this enforcement action.
- This SEP will provide a discernible environmental benefit by providing data regarding the ambient air downwind of the Formosa facility. Private citizens located to the north of the Formosa facility have expressed a desire for such monitoring to ensure protection of public health to the north of the facility. The system will serve as an early warning of any events at the plant that could have an impact on public health to the north of the plant. Also, the evaluation of long-term data will provide information regarding any possible long-term health effects. The project will provide environmental education and engineering assistance to members of the public located to the north of the facility.

B. Minimum Expenditure

The offset of seventy-five thousand dollars (\$75,000.00) of the administrative penalty is based upon Formosa's agreement to spend at least seventy-five thousand dollars (\$75,000.00) to the project described above and to comply with all other provisions of this SEP. Formosa does not expect any financial return on this project. The total cost of the project will exceed two hundred thirty-two thousand, one hundred ninety-eight dollars (\$232,198.00), and will be expended on the following:

• FTIR Equipment	\$148,090.00
• Summa Equipment	\$25,000.00
• Electrical	\$15,000.00
• FTIR Tower	\$15,000.00
• FTIR Building	\$8,000.00
• Labor	\$56,566.00
• Overhead	\$21,108.00
• Total	\$232,198.00
• Estimated Annual Cost	\$30,000.00

2. Performance Schedule

- A. Within 45 days after the effective date of the Agreed Order, Formosa shall submit for review and approval of the Executive Director ("ED") a Quality Assurance Project Plan ("QAPP")

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- in EPA QA/R-5 Format. The QAPP document shall establish data quality objectives and identify the ambient monitoring network hardware configuration, monitor locations, calibration, data processing and validation protocols, data transmittal formats and procedures, and quality-assurance audit procedures;
- B. Within 45 days after the approval of the QAPP, Formosa shall select an independent, third-party qualified contractor (the "Contractor");
 - C. Within 90 days following the selection of an independent, third-party, qualified contractor, the Contractor shall complete the necessary civil work, including, but not limited to, concrete padding, construction of the FTIR Building, installation of the FTIR Tower, and installation of electrical and phone lines;
 - D. Within 90 days after the completion of the necessary civil work, the Contractor shall install the FTIR system; and
 - E. Within 90 days after the installation of the FTIR system, the Contractor shall install the summa canister system and software, and bring the system to steady operation.

3. Records and Reporting

Reports shall be submitted quarterly to the TCEQ as well as posted quarterly on Formosa's website, and shall include information on the status of the project, verification of fund expenditures, and evaluation of the effectiveness and benefit of the SEP. The quarterly report will include meteorological data. In addition to the quarterly reports submitted by Formosa, the TCEQ will have computer access to the data from the FTIR on a real-time basis. Finally, Formosa will provide on its website a telephone number which the public can call to make arrangements to view the real time data at the Formosa plant.

4. Failure to Fully Perform

If Formosa does not perform its obligations under this SEP, including full expenditure of all required funds and the submittal of adequate reports, the Executive Director may require immediate payment of all or part of the seventy-five thousand dollars (\$75,000.00) conditionally offset.

The check for any amount due shall be made out to "Texas Commission on Environmental Quality" and mailed to:

Texas Commission on Environmental Quality
Financial Administration Division, Revenues
Attention: Cashier, MC 214
P.O. Box 13088
Austin, Texas 78711-3088

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A copy of the check shall be mailed to the TCEQ SEP Coordinator at the address in Section 3 above.

5. Publicity

Any public statements concerning this SEP made by, or on behalf of, Formosa must include a clear statement that the project was performed as part of the settlement of an enforcement action brought by the TCEQ. Such statements include, but are not limited to, advertising, public relations, and press releases.

6. Clean Texas Program

Formosa shall not include this SEP in any application made to TCEQ under the "Clean Texas" (or any successor) program(s). Similarly, Formosa may not seek recognition for this contribution in any other State or Federal regulatory program.

7. Other SEPs by TCEQ or Other Agencies

The SEP identified in this Agreed Order has not been, and shall not be, included as an SEP for Formosa under any other Agreed Order negotiated with the TCEQ or any other agency of the State or Federal government.

Attachment B

SCOPE OF WORK

The VCM plant in Point Comfort, TX has experienced process leaks from piping and equipment. The plant has an existing corrosion erosion-monitoring program ("CEMP") in place for equipment and piping. The plant is currently enhancing this program to reduce the number of releases from piping and equipment from corrosion and erosion mechanisms. The concentrated effort is being made in the 500 area piping systems of the VCM unit. The area was pre-selected based on a Six Sigma study of leaks from 1996 to 2001.

A third-party corrosion consultant is required to review and evaluate efforts in the VCM plant 500 area to reduce leaks from piping and equipment. A written report will be generated to summarize findings and recommendations. The majority of leaks (67%) have been from piping systems. The consultant will review and evaluate the following:

1. A three year release history for the VCM plant for the years 2000, 2001, and 2002;
2. Corrective actions taken for the above releases;
3. Benchmarking of Formosa's CEMP program with industry;
4. Technician and engineer training and experience levels;
5. Corrosion/erosion monitoring equipment, tools and methodologies;
6. Ultrapipe computer software;
7. Reports generated from the CEMP program;
8. Amount of Thickness Measurement Location ("TML") in proportion to pipe run;
9. Piping and equipment design standards;
10. Implementation of the program.

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 8, 2004

CERTIFIED MAIL

Randall P. Smith, Vice President
Formosa Plastics Corporation, Texas
P.O. Box 700
Point Comfort, Texas 77978-0700

Robert T. Stewart
Kelly, Hart & Hallman
Suite 2000
301 Congress Avenue
Austin, Texas 78701-2944

RE: Formosa Plastics Corporation, Texas
TCEQ Docket No. 2000-1144-AIR-E; TCEQ Air Account No. CB-0038-Q
Agreed Order Assessing Administrative Penalties and Requiring Certain Action

Enclosed is a copy of an order issued by the Commission.

Questions regarding the order should be directed to the Enforcement Coordinator or the Staff Attorney. If there are questions pertaining to the mailing of the order, then please contact Cynthia Zapata of the Texas Commission on Environmental Quality's Office of the Chief Clerk (MC 105) at (512) 239-4517.

Sincerely,

A handwritten signature in black ink, appearing to read "LaDonna Castañuela".

LaDonna Castañuela
Chief Clerk

LDC/cz

Enclosure

cc: David Turner, Regional Contact, TCEQ Region 14
Gitanjali Yadav, Staff Attorney, TCEQ Litigation Division (MC 175)
Kate Hodgins, SEP Coordinator, TCEQ Litigation Division (MC 175)
Miriam Hall, Enforcement Coordinator, TCEQ Enforcement Division (MC 169)